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ABSTRACT

Before the New Mexico Research and Study Council (NMRSC) could create the Educational Computer Services Program, school districts had to agree that they would contract for the proposed services for the 1980-81 school year. This manual provides decision-making information for school districts wanting to become members of the program. Included are the goals of a centralized computer center, the computer packages available, organizational responsibilities, equipment responsibilities, cost information, and spinoff benefits. The appendix lists the capabilities of three computer packages: financial, payroll, and student scheduling. (MLF)

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EDUCATIONAL COMPUTER SERVICES

School District Decision-Making Manual

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New Mexico Research and Study Council

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"YES" OR "NO" (DO WE, OR DON'T WE?)

The time has arrived when the school districts of New Mexico need to decide whether or not to create the proposed NMRSC Educational Computer Services Program. If a decision is made to proceed, the NMRSC will enter into agreements with school districts in June, 1980 to cover services to be provided during the 1980-81 school year. (Additional districts will be encouraged to join during each succeeding year.) If a decision is made not to proceed, the NMRSC will put the proposed project on "a back burner".

The NMRSC Computer Advisory Committee and the NMRSC Board of Directors have both voted unanimously for proceeding to create the proposed Educational Computer Services Program.

Council members are now at the decision-making point. To create the proposed Educational Computer Services Program, school districts with a combined ADM of about 13,000 students must agree by May 29, 1980 that they will contract for the proposed services for the 1980-81 school year. Is your district going to participate in 1980-81?

THE QUESTION IS...

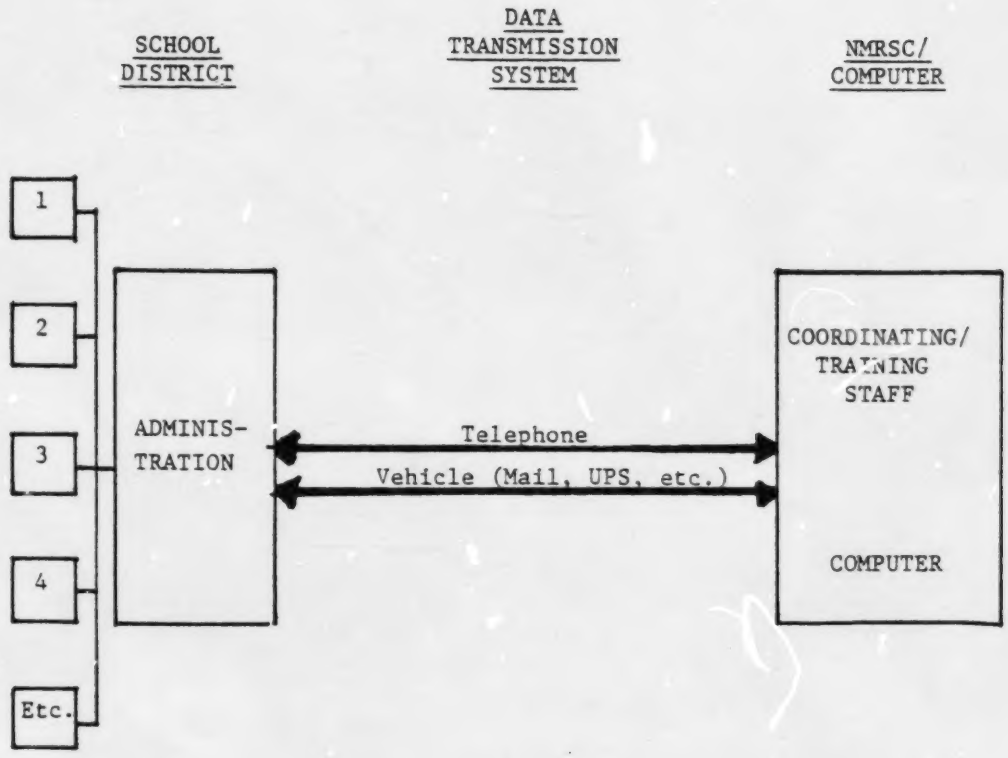
Do a sufficient number of school districts want to extensively computerize their data processing operations utilizing a centralized computer —— and are these same districts able and willing to pay for the service?

The balance of this manual provides decision-making information for those districts wanting to computerize at this time.

GOALS OF THE CENTRALIZED COMPUTER CENTER

1. Provide a computerized system which permits member school districts to meet all data reporting requirements of:
   a. Public School Finance
   b. State Department of Education
   c. Federal Programs
   d. Local School Districts
2. Provide comprehensive computerized services meeting all data management needs of local school districts, including financial data, student data, and all other data.
3. Provide comprehensive educational computer services at the lowest possible long range cost.
4. Provide a computer service which can meet the needs of all New Mexico school districts.
5. Operate a centralized computer service which will continuously improve the opportunity for increasing the level of State support--both for operational and capital outlay funds.
6. Operate a system which will strengthen the New Mexico Research and Study Council for improving and expanding school district educational computer services.

THE SYSTEM



Schools

SERVICES

The system is being designed to ultimately meet all of the data processing needs of all school districts which become members of the Educational Computer Service Program. This will ultimately involve some 40-50 computer packages.

During the first year of operation, the Educational Computer Service Program will concentrate in operationalizing two types of packages. The first set of efforts will be devoted to developing financial and student data programs which will require almost daily participation of school district administrative employees; for example, payroll and student accounting. The second set of programs are those which will require participation of school district administrative employees for only one or two relatively short periods each year; for example, equipment inventory and student course-scheduling.

As fast as districts will be able to add to the initial programs, the New Mexico Research and Study Council will train school district employees to continuously expand and improve the computer packages being operationalized by school districts. It is anticipated that within three to five years each school district participating will develop a very comprehensive computerized program.

The list which follows indicates those computer packages which will be given early attention in the New Mexico Research and Study Council Educational Computer Service Program.

A. Financial:

1. Revenue Accounting
2. Budgeting
3. Accounts Payable
4. Payroll System
5. Federal Programs Reporting
6. Food Services Accounting and Reporting
7. Activity Funds Budgeting
8. Purchasing
9. Personnel

B. Student Data Base:

1. Gifted and Talented Programs
2. Grade Reporting
3. Enrollment/Attendance

C. Other:

1. Inventory
2. Test Scoring
3. Student Scheduling

The Appendix contains a considerably more extensive list of the computer packages which will ultimately be included in this system.

It should be noted that the only computer packages which will be made available to member school districts are those packages which districts indicate they want to operationalize.

ORGANIZATIONAL RESPONSIBILITIES

A. School Districts:

1. Enter into service agreement with New Mexico Research and Study Council.
2. Manually collect data and enter it into computer system.
3. Enter into agreement with telephone, terminal, and maintenance companies.
4. Receive printouts from NMRSC; proof and distribute.

B. New Mexico Research and Study Council:

1. Research options and set up system; update periodically.
2. Make knowledge of system available to districts.
3. Train district personnel to collect data, operate terminal, transmit data, read printouts, handle bookkeeping, etc.
4. Coordinate district input/needs/problems with computer personnel.
5. Coordinate district input/needs/problems with Public School Finance, State Department of Education, and Federal Programs.
6. Invoice for service rendered.
7. Update future cost estimates.

C. Computer Services:

1. Buy, borrow, lease software program (subject to NMRSC approval)
2. Operate computers and related equipment.
3. Receive data, process data, and return output.

D. Telephone Company(s):

1. Transmit data to and from districts.
2. (Maybe) Rent terminals and related equipment to districts.

EQUIPMENT RESPONSIBILITIES

I. School District*:

Terminal

Video Screen

Printer

Telephone line connection with modem

*All school district equipment is optional; i.e., not needed for manual batching.

II. Telephone Company(s):

Telephone line (may be used as dial up, dedicated, conditioned, and shared)

III. New Mexico Research and Study Council:

Terminal

Video Screen

Printer

Telephone line connection with modem

Office and equipment

Auto

IV. Computer Services:

Data Storage (disks and tapes)

Disk and Tape Drives (to put information from data storage into the computer)

Computer (IBM 3032)

Terminal Ports (Five types; used to input data into computer)

Line Printers (1,000 and 2,000 lines/minute)

Card Reader/Punch

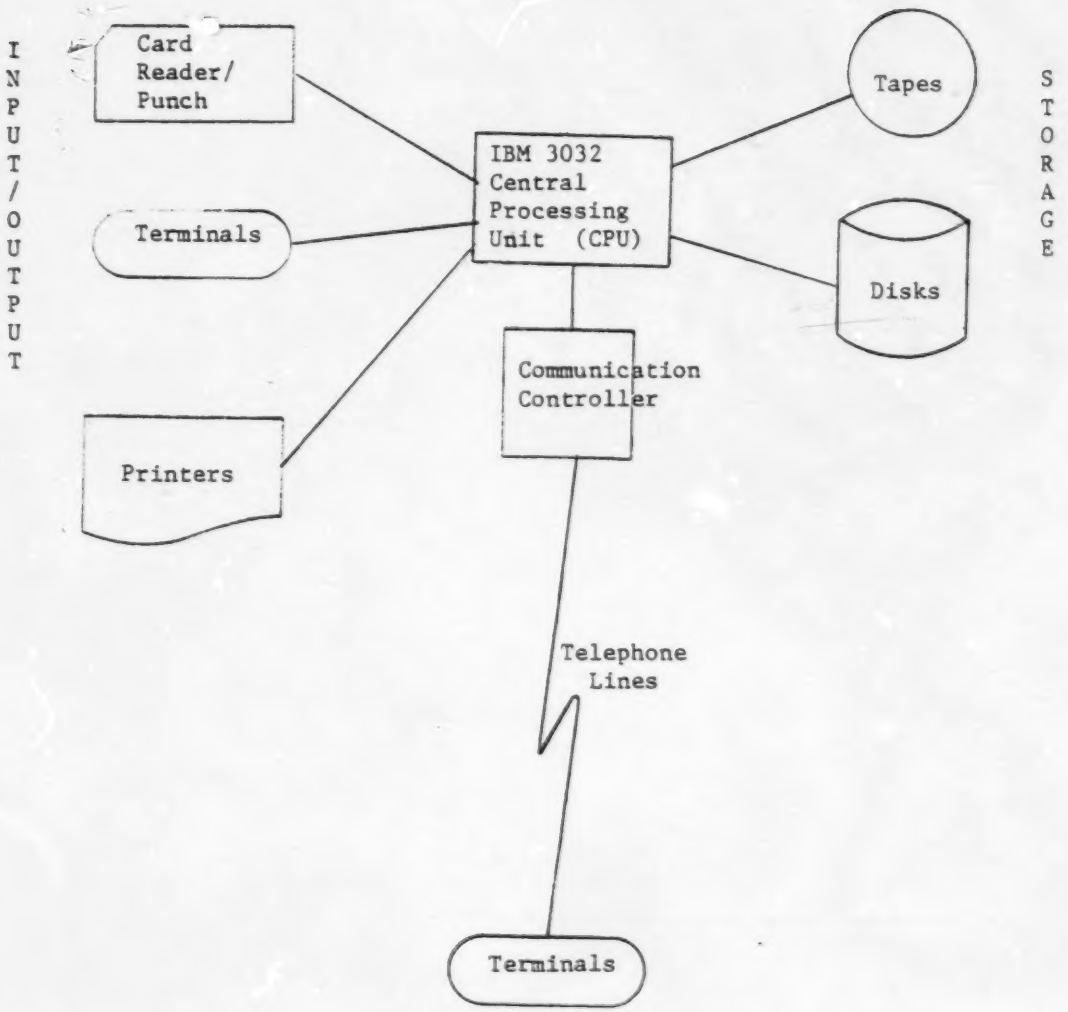
Card Reader

Test Scorer (Mark Sense Reader)

Communications Controller (routes telephone calls at computer)

UNM

COMPUTING EQUIPMENT



COST INFORMATION

(FOR 1980-81)

EQUIPMENT OPTIONS	IN-DISTRICT	DATA TRANSMISSION	NMRSC COMPUTER
1. Raw Data Collected at School District and Mailed to NMRSC Computerized Data Returned by Mail.	-0-	$50/yr.	$10/ADM/Yr.
2. District leased terminal used to input data into computer system on dial-up telephone.	$1,100 to $5,000/yr.	$500 to $1,500/yr.	$10/ADM/Yr.
Note: School Districts have several equipment leasing options; each would add on to the $1,100 base, e.g., Basic terminal $90/month ($1,100). Diskette Producer $40/month ($480) -or- Terminal w/screen/printer $400/month ($4,800)		Note: The leasing of telephone lines is not planned for 1980-81. Estimated costs reflect dial-up service.	Note: The $10/ADM would be pooled. Actual costs incurred by NMRSC and the Computer Center would be charged to the pool. Unspent funds would revert to participating school districts.

USE OF THE $10/ADM/YR. POOL

Two types of charges would be made against this pool:

1. NMRSC costs associated with administering and coordinating the Educational Computer Services Program. Also, the costs of training school district staffs. (This cost is expected to range between $2.00 and $4.00 the first year a district participates, and $1.00 and $2.00 thereafter.)
2. Computer-related costs such as software, programming, computer time, computer-related equipment, and supplies. (This cost is expected to range between $6.00 and $8.00 the first year, and $8.00 and $9.00 the second year.)

(The cost of both NMRSC and computer-related work will not exceed $10/ADM.)

SHOULD YOUR SCHOOL DISTRICT
COMPUTERIZE?

The answer is "yes" if:

a. you want to do much more of your routine administrative work in a more organized fashion.

b. you, your board and your staff want to have much more and much better organized data prior to the time when major decisions are to be made.

c. you want to expose students, faculty and staff to computer equipment and processes.

The answer is "no" if:

a. you think computerization will reduce overall expenditures or staff.

b. you think computerizing will reduce workload.

STATE-WIDE FUNDING

Several efforts were made by Council officers, staff, and other supporters to secure State funding for the proposed Educational Computer Services Program. Indications are that State support would most likely be forthcoming if the Council operationalizes the system and if districts throughout the State strongly support the continued expansion of the services.

During the next few years, the Council expects to continue to make efforts to secure State funding which would permit those local districts which are member districts of the Educational Computer Services Program to expand their in-district computer services from central administrative offices to high school and middle school offices.

STRENGTHENING THE COUNCIL

Frequently, the expansion of services in an organization produces, in addition to the new services, some spin-off benefits. For instance, the computerization of the Council's Cooperative Purchasing Program in 1976 made it possible to substantially increase the numbers of categories and items available for bid, to produce better documentation and to increase the number of Council members.

It is expected that the establishment of an Education Computer Services Center by NMRSC will also produce a number of additional benefits not directly related to ECSC. Some examples of perceived spin-off benefits are:

1. The ECSC will require additional staff. Occasionally, this staff will be available to assist with other Council projects.
2. The services offered through the ECSC will probably cause an increase in Council membership. This will produce additional revenue to the Council and an increase in the number of Council members. Both will enhance our stature and influence at the State level.
3. A larger staff will enable the Council to explore carrying out additional projects, such as studying the possibility of establishing a workers' compensation self-insurance pool.
4. The expertise of ECSC staff members will be available to help districts with local computer problems.

APPENDIX

ILLUSTRATION I

Summary of Application Programs

I ADMINISTRATIVE

A. Budget Distribution & Encumberance (P.P.B.S.)

1. Accounts Payable Checks
2. Payables Check Register
3. Outstanding Orders Lists
4. Detail Budget Analysis Report
5. Summary Budget Analysis Report
6. Budget Preparation & Projections
7. Budget Transfer Listing
8. Deficit Budget Listing
9. Board of Education Report
10. Appropriation Statement*

B. Payroll

1. Payroll Calculations
2. Current Earnings Register
3. Payroll Register
4. Payroll Checks
5. Year-to-date Register
6. W-2 Forms
7. F.I.C.A. Quarterly Report
8. All necessary state reports

C. Personnel

1. Staff Attendance Report
2. Personnel Profile
3. Negotiation Data
4. Retirement Reports
5. Mailing Labels
6. Substitute Teacher Reports

II STUDENT APPLICATIONS

1. Census
2. Registration
3. Attendance
4. Grade Reporting
5. Student Profile Report
6. Vehicle Registration*
7. Bus Passes*
8. Mailing Labels
9. Student Scheduling*
10. Class Ranking

III INSTRUCTIONAL

1. Drill and Practice
2. Problem Solving
3. Program courses (REACT)
4. Adult Education
5. Simulation (HUNTINGTON)
6. Student Testing
7. Business Data Processing

IIV INQUIRY

1. Facility to display pertinent data, i.e., budget balance for one item, grades for one student.
2. Up-to-the-minute reports.
3. Greater financial control.

Many additional reports available in different sequence.

NOTE: Detailed descriptions available upon request.
*Not included in the standard system.

mini · computer
systems, inc.

ILLUSTRATION II

NMRSC - ECS

Example Typical Computer Packages

I. Example Financial Package
II. Example Payroll Package
III. Example Student Scheduling

These three computer packages are typical of those used in school districts. The examples show what typically the capabilities of the package are and the typical reports and records are that are generated with each package.

I. Example Financial Package

A. Capabilities

1. Maintains budgets for all revenue and expenditure accounts.
2. Maintains records of encumbrances, expenditures and revenues against budgets.
3. Controls budget through end-of-period reconciliations.
4. Processes and validates transactions.
5. Provides access to current and historical information.
6. Provides source document reference for audit and control.
7. Provides automatic interfacing between functions.
8. Provides security for district's data.

B. Records and Reports

1. Fund Account Level Register
2. Fund Account Number Register
3. Fund Account/General Ledger Cross Reference
4. Budget Status Report
5. Detail Statement of Fund Accounts
6. Statement of Actual Versus Estimated Revenue
7. Statement of Expenditures Versus Revenues
8. Statement of Expenditures Versus Appropriations
9. Summary of Expenditures by Object
10. Daily Budget Change Audit
11. Daily Audit of Expenditure and Revenue Transactions
12. Vendor Register
13. Purchase Order Register
14. Invoice, Credit/Debit Memo Register
15. Revenue Transaction Register
16. Aged Obligation Report
17. Statement of Items Released for Payment
18. Check Register
19. Check Reconciliation Report
20. Statement of Change in Financial Position

21. Trial Balance
22. History/Budget Listing
23. Comparative Balance Sheet
24. Income/Expense Report
25. Comparative Income/Expense Report
26. Chart of Accounts Listing
27. Master File Listing
28. Transaction Journal
29. Account Activity/Journal Report
30. Maintenance Audit Trail

II. Example Payroll Package

A. Capabilities

1. Processes payroll
2. Processes hourly, salary, etc.
3. Processes weekly, semi-monthly, monthly payrolls concurrently, separately, or in any combination
4. Produces quarterly Social Security reports
5. Produces year-end W-2 Statements
6. Automatically calculates overtime
7. Interfaces with financial package to distribute costs to appropriate line items, departments, cost centers, etc.
8. Provides security for district's data

B. Records and Reports

1. Earnings Transaction Audit List
2. Payroll Register
3. Payroll Checks
4. Check Register
5. Earnings Distribution List
6. Bond Eligibility
7. Deductions
8. Employee Status
9. General Ledger Distribution
10. Rate Change
11. Inactive Employee
12. Minimum Wage List
13. Employee Deduction Status
14. Vacation/Sick Hours
15. Outstanding Checks
16. Reconciliation Activity List

III. Example Student Scheduling Package

A. Capabilities

1. Assigns student to courses and sections of courses

2. Provides for balancing in scheduling along sex, ethnic, etc. variables
3. Analyzes scheduling conflicts
4. Interfaces with student records, grade reporting, etc. packages
5. Provides security for district's data

B. Records and Reports

1. Student Request List
2. Course Matrixes
3. Room Utilization Report
4. Teacher Utilization Report
5. Student Schedule
6. Study Hall Requirements Report
7. Master Schedule Report
8. Class Rosters
9. Course Rosters
10. Grade Sheets
11. Conflict Lists
12. Course Request Analysis and Tally
13. Enrollment Tallies and Summaries